

**ELECTRIC CONDUCTIVE TRANSPARENT HIGH BARRIER FILM**

Patent Number: JP4210464  
Publication date: 1992-07-31  
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Requested Patent: JP4210464  
Application Number: JP19900341243 19901130  
Priority Number(s):  
IPC Classification: C23C14/06  
EC Classification:  
Equivalents: JP2883732B2

**Abstract**

**PURPOSE:**To obtain the title film excellent in transparency, gas impermeability and electric conductivity by laminating a thin metal layer and a thin silicon oxide layer on at least one side of a synthetic resin film.  
**CONSTITUTION:**The thin layer (b) of silicon oxide represented by a formula  $\text{SiO}_X$  (where  $1 \leq X < 2$ ) is formed in about 500-1000Angstrom thickness on one side or both sides of a film (a) of synthetic resin such as polyethylene terephthalate by electron beam heating and vapor deposition with silicon monoxide as an evaporating source. A metal (alloy) such as Al, Ni or Cr is then vapor-deposited on the surface of the thin layer to form a thin layer (c) in about 30-100Angstrom thickness. The layers are preferably laminated with the order of (a), (b) and (c) or (a), (c), and (b). The resulting title film is suitable for use as a packing material.

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*elec  
conductivity*

XP-002169740

AN - 1992-304556 [37]

AP - JP19900341243 19901130 JP19900341243 19901130; [Previous Publ.  
J04210464 ]

CPY - OIKE

DC - L03 M13

FS - CPI

IC - B32B15/08 ; C23C14/06 ; C23C14/08

MC - L03-A01 M13-F

PA - (OIKE ) OIKE KOGYO KK

PN - JP4210464 A 19920731 DW199237 C23C14/06 005pp

- JP2883732B2 B2 19990419 DW199921 C23C14/08 005pp

PR - JP19900341243 19901130

XA - C1992-135539

XIC - B32B-015/08 ; C23C-014/06 ; C23C-014/08

AB - J04210464 The film is composed of (a) synthetic resin film, (b)  
silicon oxide ( $\text{SiO}_x$   $x = 1$  to below 2) thin film layer and (c) metallic  
thin film layer, in the order (a)/(b)/(c) or (a)/(c)/(b).

- USE/ADVANTAGE - Used for mfr. of packing materials having electric  
conductivity, penetrability and gas-barrier ability(Dwg.0/0)

IW - PRODUCE CONDUCTING TRANSPARENT BARRIER FILM PACK MATERIAL COMPRISE  
LAMINATE SYNTHETIC RESIN SILICON OXIDE METALLIC THIN FILM LAYER

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NC - 001

OPD - 1990-11-30

ORD - 1992-07-31

PAW - (OIKE ) OIKE KOGYO KK

TI - Prod'n. of conductive and transparent barrier film for packing  
materials - comprises laminate of synthetic resin, silicon oxide and  
metallic thin film layers

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